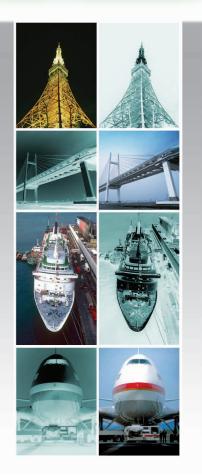




# Industrial X-RAY FILM





# FUJIFILM INDUSTRIAL X-RAY FILM for consistent high quality non-destructive Testing

Fujifilm industrial X-ray film(IX Film) features our revolutionary new film technology. The combination of the latest emulsion making science and computerized manufacturing process assure consistent batch to batch performance, optimum image quality and compatibility with all NDT chemicals and manual / automatic processing conditions. The IX Film incorporates unique speed and grain technologies that allow its usage over a wide range of applications with consistent high quality, regardless of the testing material and the radiation source.

Film	Applications	Features
Type/ID Notch	, pp. concert	
IX 20	<ul> <li>Micro-electronic parts</li> <li>Neutron radiography</li> <li>Critical investment castings</li> <li>Ultra-fine ceramic parts</li> <li>Graphite composite parts</li> </ul>	A single emulsion, ultra-fine grain, high contrast film suitable for critical inspections that require high image quality. Its single emulsion feature minimizes parallax and permits extremely sharp magnified image.IX20 is generally used in direct exposure techniques or with lead screens.
IX 25	Micro-electronic parts     Fine ceramic parts     Castings: low to medium atomic number metals     Carbon fiber reinforced plastics	Fujifilm's finest grain, highest contrast ASTM special film having maximum sharpness and discrimination characteristics. IX25 is generally used in direct exposure techniques or with lead screens. IX25 is recommended for automatic processing only.
IX 30	Pipe weld     Electronic components     Aerospace and aircraft components     Nuclear plants     Castings(low to medium atomic number metals)	An ultra-fine grain, very high contrast ASTM Class I film having excellent sharpness and very high discrimination characteristics. IX30 will provide an excellent image quality to obtain accurate results for critical NDT inspections. IX30 is suitable for exposure using radiation sources such as X-ray, gamma rays or megavolt equipment. IX30 is generally used in direct exposure techniques or with lead screens.
IX 50	<ul> <li>Electronic parts</li> <li>Graphite epoxy composites</li> <li>Castings: low to medium atomic number metals</li> </ul>	An ultra-fine grain, high contrast ASTM Class I film having excellent sharpness and high discrimination characteristics. It is suitable for use with any low atomic number material where fine image detail is imperative. IX50 is generally used in direct exposure techniques or with lead screens.
IX 80	•Welds: low to medium atomic number metals •Castings: low to medium atomic number metals •Aircraft construction and maintenance •Graphite epoxy composites	An extremely fine grain, high contrast ASTM Class I film suitable for detection of minute defects. It is applicable to the inspection of low atomic number materials with low kilovoltage X-ray sources, as well as inspection of higher atomic number materials with high kilovoltage X-ray or gamma ray sources. IX80 is generally used in direct exposure techniques or with lead screens.
IX 100	Welds: medium to higher atomic number metals     Castings: medium to higher atomic number metals     Aircraft construction and maintenance	A very fine grain, high contrast ASTM Class II film suitable for the inspection of light metals with low activity radiation sources, and also for inspection of thick objects with high kilovoltage X-ray or gamma ray sources. Wide exposure latitude has been demonstrated in high contrast subject applications. Although IX100 is generally used in direct exposure techniques or with lead screens.
IX 150	<ul> <li>Heavy, multi-thick steel parts</li> <li>Steel reinforced concrete</li> <li>Low curie isotope and low-output X-ray exposures</li> </ul>	A high speed, fine grain, high contrast ASTM Class III film suitable for inspection of a large variety of objects with low-to-high kilovoltage X-ray and gamma ray sources. It is particularly useful when gamma ray sources of high activity are unavailable or when very thick specimens are to be inspected. IX150 is used in direct exposure techniques or with lead screens.
IX 29	<ul> <li>Castings and other multi-thickness objects</li> </ul>	An ultra-fine grain, medium contrast ASTM Class W-A film suitable to inspect wide range thickness objects such as precision cast parts with X-ray or gamma ray sources. IX29 can be used in direct exposure techniques or with lead screens.
IX 59	<ul> <li>Castings and other multi-thickness objects</li> </ul>	An extremely fine grain, medium contrast ASTM Class W-B film suitable to inspect multi-thick, low-atomic number metal, and steel cast parts. IX59 can be used in direct exposure techniques or with lead screens.

### Advantages of Fujifilm IX Film

#### (1) High Image Quality

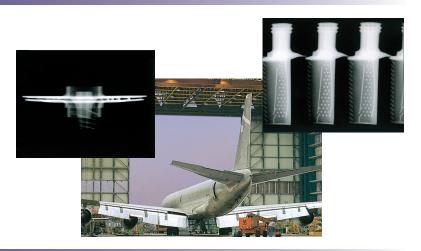
The IX Film exhibits high defect recognition due to their fine granularity.

#### (2) Constant Performance

The IX Film has the best batch to batch consistency in the industry. Therefore, the exposure time do not vary under the same exposure condition, which increases the inspection efficiency of our customers.

#### (3) Less density uneveness

Fujifilm's even emulsion coating avoids most of the density unevenness that may occur.



<b>F</b> ilms	Relative speed*			Film system class∗			Sheet : Non interleaved	
Film	100KV Direct	200KV with lead	lr-192 with lead	Co-60 with lead	ASTM E1815-08	ISO 11699-1	JIS K7627	Available packaging type
IX 20	10	9	8	5	-	-	-	Sheet : Non interleaved
IX 25	20	17	15	10	SPECIAL	C1	Τ1	Sheet : Non interleaved : Envelopak : Envelopak+Pb
IX 30	30	25	18	16	Ι	C2	Τ1	Sheet : Non interleaved : Envelopak : Envelopak+Pb Roll : Non interleaved
IX 50	35	30	30	30	Ι	C3	T2	Sheet : Interleaved : Non interleaved : Envelopak, Envelopak+Pb Roll : Non interleaved : Envelopak, Envelopak+Pb
IX 80	55	55	55	55	I	C4	T2	Sheet : Interleaved : Non interleaved : Envelopak, Envelopak+Pb Roll : Non interleaved : Envelopak, Envelopak+Pb
IX 100	100	100	100	100	П	C5	ТЗ	Sheet : Interleaved : Non interleaved : Envelopak, Envelopak+Pb Roll : Non interleaved : Envelopak+Pb
IX 150	200	200	170	170	Ш	C6	Τ4	Sheet : Interleaved : Non interleaved : Envelopak+Pb
IX 29	22	22	22	22	W-A	-	W-A	Sheet : Non interleaved Roll : Non interleaved
IX 59	45	45	45	45	W-B	-	W-B	Sheet : Non interleaved : Envelopak

% Classification based on development with Fujifilm's recommended processing conditions.

## Fujifilm 5-minute processable IX films are offered in eight types with a variety of packaging to meet any NDT need.

### Sheet and Sheet-Pack Film



Four types of sheet film package (Interleaved, Non-interleaved, Envelopak, and Envelopak + Pb) are available in most conventional sizes. Blue tint and sharp images make these products ideal for the most critical radiographic inspections.

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#### **Envelopak Sheet Film**

Envelopak is a complete daylight package containing precut sheet film. Triple-layered packaging is water-proof and oil resistant, allowing easy usage under most exposure/environmental conditions. Envelopak is available with or without lead screens (Envelopak sheet and Envelopak + Pb sheet).

### **Roll and Roll-Pack Film**



Roll Film is precut in width of 70mm, 100mm, etc. (supplied in a convenient dispenser box) Blue tint and sharp images make these films ideal for the most critical radiographic inspections. Roll-Pack is also available with or without lead screens (Envelopak Roll and Envelopak + Pb Roll). The sealed edge can be cut at any desired length for inspections that require special film size. Darkroom loading Roll Film is also available.

